Appln. No. 09/826,671
Reply to Office Action mailed October 5, 2004

AMENDMENT TO THE CLAIMS
This listing of the claims replaces all prior listings of the claims.
Listing of the Claims:

1. (Original) A method for dynamically scheduling communications to a plurality of receivers over a TDMA channel that is partitioned into frames each consisting of slots, comprising the steps of:

measuring a channel condition of each receiver;

dividing the receivers into receiver groups according their channel conditions;

partitioning the TDMA channel into a recurring sequence of slots;

dividing each sequence into a certain number of slot groups; and

allocating the slot groups to the receiver groups according to the receivers' channel conditions.

2. (Original) A method according to claim 1, wherein more slot groups are allocated to the receiver groups having receivers with good channel conditions.

3. (Original) A method according to claim 1, further comprising the step of assigning receivers in a receiver group slots in the slot group allocated to the receiver group.

4. (Original) A method according to claim 3, wherein more slots are assigned to receivers with better channel conditions.

5. (Original) A method according to claim 1, wherein the channel condition is indicated by any one of SIR, SNIR, SNR, CI, E/N, FER, BER and DRC.

6. (Original) A method according to claim 1, wherein the receivers are grouped based on statistically predicted signal reception conditions.

7. (Original) A method according to claim 1, wherein the TDMA channel is implemented on a CDMA channel.

8. (Original) A method according to claim 1, wherein the receivers are grouped in an equal number.

9. (Original) A method according to claim 1, wherein the receivers are grouped based on threshold levels of channel condition.

10. (Currently amended) A method according to claim 8, wherein at least one of ~~the~~ an upper and lower threshold levels defining a group is changed to try to keep constant the number of receivers in the group.

11. (Currently Amended) A method according to claim 8, wherein at least one of ~~the~~ an upper and lower threshold levels defining a group is changed to try to keep constant an average of the signal reception conditions of the receivers in the group.

12. (Original) A method according to claim 1, wherein as a number of receivers in a group increases or decreases, more or less slots are allocated to the group.

13. (Original) A method according to claim 1, wherein when a group becomes comprised only of receivers whose current channel conditions are lower than a minimum channel condition, a slot that has been allocated to the group will be made an idle slot.

14. (Original) A method according to claim 1, wherein when a group becomes comprised only of receivers whose current channel conditions are lower than a minimum channel condition, a slot that has been allocated to the group will be reallocated to another group.

15. (Original) A method according to claim 1, wherein slots that have been allocated to a group are assigned more favorably to receivers in the group that require higher QoS.

16. (Original) A method according to claim 1, wherein the channel condition is measured at a receiver based on a pilot symbol received from the sender.

17. (Original) A method according to claim 1, wherein the channel condition is measured at the sender based on data received from a receiver.

18. (Original) A method according to claim 1, wherein a data rate for a receiver is adaptively changed according to the channel condition of the receiver.

19. (Original) A method according to claim 1, wherein data to be multicasted to a plurality of receivers in at least one group are not multicasted to the receivers unless all or most of the receivers have channel conditions higher than a predetermined multicast channel condition.

20. (Original) A method according to claim 1, wherein each receiver is notified of slots assigned thereto and puts itself in a sleep mode during timings of slots assigned to the other receivers.